# UNITED STATES PATENT AND TRADEMARK OFFICE

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 09/361,641 | 07/26/1999 | LUIS FELIPE CABRERA | 2130 | 5763 |

7590     03/25/2004

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| EXAMINER |
|---|
| LE, DIEU MINH T |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2114 | |

DATE MAILED: 03/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | Application No. | | Applicant(s) | |
|---|---|---|---|---|---|
| **Office Action Summary** | | 09/361,641 | | CABRERA ET AL. | |
| | | Examiner | | Art Unit | |
| | | Dieu-Minh Le | | 2114 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *23 December 2003*.

2a)☒ This action is **FINAL**.    2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *49-89* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *49-89* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

## DETAILED ACTION

1.    This Office Action is in response to the amendment filed

December 23, 2003 in application 09/361,641.

2.    Claims 1-48 have been cancelled and claims 49-89 have been·

added.

3.    The text of those sections of Title 35, U.S. Code not

included in this action can be found in a prior Office action.

### *Claim Objections*

4.    Claim 66 is objected to because of the following

informalities:

As per claim 66, Applicant claims a computer-readable

medium as shown on lines 1-2.  However, the claim is not

structured to specifically associate the executable programs

instructions with the functions being performed, such that there

is no doubt that the instructions performing these functions are

stored on the computer readable medium.  Such an association

will eliminate any possible ambiguities that may lead to

possible 35 U.S.C 101 problems regarding computer programs. The

examiner suggests that if the applicant is trying claim a

product claim, the following example is suggest:

(A computer-readable medium having computer readable program

code embodied on said medium for …, said computer-readable

medium comprising:

a set of data...)

Appropriate correction is required.


### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs

of 35 U.S.C. 102 that form the basis for the rejections under

this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published

under section 122(b), by another filed in the United States before the

invention by the applicant for patent or (2) a patent granted on an

application for patent by another filed in the United States before the

invention by the applicant for patent, except that an international

application filed under the treaty defined in section 351(a) shall have the

effects for purposes of this subsection of an application filed in the

United States only if the international application designated the United

States and was published under Article 21(2) of such treaty in the English

language.


5.    Claims 49-53, 56-60, 63-70, 72-78, 80-81, 83, and 85-89 are

rejected under 35 U.S.C. § 102(e) as being anticipated by Perks

(U.S. Patent 5,924,102).

As per claim 49:

Perks explicitly teaches:

- A method for backing up and restoring a computer system

software stored persistently [abstract, col. 2, lines 1-7

and 19-21], comprising:

- invoking an application program interface *(i.e., API)*

[col. 3, lines 43-44] for collecting information of the

software execution state [col. 3, lines 34-39];

- invoking an application program interface *(i.e., API)*

[col. 3, lines 43-44] for storing [col. 3, lines 65-66] on

a medium the collected information of the software

execution state [col. 3, lines 34-39];

- receiving information of the system state [col. 3, lines

12-21] of a hardware device [col. 1, lines 36-40]col. 3,

lines 1-4];

- persistently storing [col. 3, lines 65-66] on the medium

the information of the system state of the hardware device

[col. 3, lines 46-63];

- retrieving [col. 1, lines 14-16 and col. 3, lines 60-64]

the information of the system state of the hardware device

stored on the medium [col. 2, lines 45-67];

- restoring the state of the hardware device using the

retrieved information of the system state of the hardware

device stored on the medium [col. 1, lines 65-67 and col.

2, lines 1-7];

- retrieving the information of the execution state of the

program stored on the medium [col. 1, lines 53-57 and col.

3, lines 60-64];

- restoring the execution state of the program using the

retrieved information of the execution state of the program

stored on the medium [col. 3, lines 34-37].


As per claims 50-53:

Perks further explicitly teaches:

- querying the system state [col. 3, lines 7-21] of the

hardware device *(i.e., identifying and maintaining)* [col.

3, lines 52-56 and col. 6, lines 8-23];

- recording recovery information on the medium (i.e., a

system failure restoration [col. 2, lines 22-24] including

core operating system files and registry information [col.

3, lines 7-21 and col. 4, lines 1-22].


As per claim 56-57:

Perks further explicitly teaches:

- rebooting the computer system [col. 5, lines 19-25];

- invoking application programming interface (i.e., API)
[col. 1, lines 58-65] for collecting the registry
information  [col. 4, lines 8-21];

- querying the system state of a catalog of unmodifiable
files *(i.e., preventing from modifying and unregister
files)* [col. 4, lines 21-22 and lines 51-56].


As per claim 58-60:

Perks further explicitly teaches:

- executing a restore process for restoring the state of
the hardware device [col. 3, lines 40-64];

- executing at least one restore program for restoring the
execution state of the program  [col. 3, lines 46-66 and
col. 5, lines 30-35];

- persistently storing on the medium information specifying
the programs to copy [col. 3, lines 55-60 and col. 5, lines
25-29] and execute upon restoration [col. 5, lines 30-35].


As per claim 63-64:

Perks further explicitly teaches:

- invoking an application programming interface [col. 1,
lines 57-67] for collecting information of an execution
state of a program comprises invoking an application

programming interface for collecting information [col. 6,

lines 8-23] of an execution state of an operating system

program [col. 3, lines 7-21].


As per claims 65:

Perks further explicitly teaches:

- a computer readable medium  having computer-executable

components comprising the system of claim 49 [col. 7,

line12 through col. 8, line 18].


As per claim 66:

Perks explicitly teaches:

- A computer-readable medium having stored thereon a data

structure [abstract, col. 7, line12 through col. 8, line

18], comprising:

- a set of data representing state information of a

hardware device [col. 3, lines 7-21 and lines 34-39];

- a set of data representing information of the execution

state of a program [col. 3, lines 7-21 and lines 34-39];

- a set of data representing registry information [col. 4,

lines 9-15];

- a set of data representing catalog information [col. 6,

lines 8-23];

As per claims 67-70:

Perks further explicitly teaches:

- a set of data representing instructions for restoring

program [col. 7, line12 through col. 8, line 18];

- a set of data representing core operating system files

[col. 3, lines 7-21 and lines 34-39];

- a set of data representing state information of a

hardware device comprises state information of a hard disk

[col. 3, lines 47-64].


As per claims 72-75:

Perks further explicitly teaches:

- A computer-readable medium having stored thereon a data

structure [abstract, col. 7, line12 through col. 8, line

18], comprising:

- a set of data representing state information of a

hardware device [col. 3, lines 7-21 and lines 34-39];

- a set of data representing information of the execution

state of a program comprising information of the execution

state of an operating system program [col. 3, lines 7-21

and lines 34-39];

- a set of data representing registry information

comprising data corresponding to hardware installed in the

system [col. 4, lines 9-15];

- a set of data representing catalog information [col. 6,

lines 8-23] comprises a list of unmodifiable files *(i.e.,*

*preventing from modifying and unregister files)* [col. 4,

lines 21-22 and lines 51-56].


As per claims 76:

Perks explicitly teaches:

- A method for recovering from a failure of a computer

system [col. 1, lines 10-15 and lines 50-56, and col. 3,

lines 1-6]; comprising:

- recording recovery information on the medium (i.e., a

system failure restoration [col. 2, lines 22-24] including

core operating system files and registry information [col.

3, lines 7-21 and col. 4, lines 1-22], catalog information

[col. 6, lines 8-23], system state of a program [col. 3,

lines 7-21 and lines 34-39] and a catalog listing of

unmodified files *(i.e., preventing from modifying and*

*unregister files)* [col. 4, lines 21-22 and lines 51-56];

- restoring the system state of least one hardware device

[col. 3, lines 34-39 and col. 5, lines 30-35];

- creating a restoration environment using recovery

information recorded on the medium [col. 3, lines 34-37];

- restoring the execution state of at least one program

using the recorded recovery information [col. 3, lines 10-

17 and col. 4, lines 34-42].


As per claims 77-78:

Perks further explicitly teaches:

- recording on the medium at least one instructions for

restoring configuration information of backup storage

device [col. 7, line12 through col. 8, line 18];

- recording on the medium instruction for restoring program

[col. 7, line12 through col. 8, line 18].


As per claims 80-81, and 83:

Perks further explicitly teaches:

- recording on the medium recovery information [col. 7,

line12 through col. 8, line 18] including invoking an

application programming interface [col. 1, lines 57-67] for

collecting the execution state of the program [col. 3,

lines 7-21];

- executing a restore process for restoring the system

state of at least one hardware device [col. 3, lines 46-

64].

- rebooting the computer system after restoring the system

state [col. 5, lines 19-28].


As per claims 85-88:

Perks further explicitly teaches:

- executing at least one restoring program for

      -- restoring the operating system files [col. 3, lines

7-21];

      -- restoring the application program files [col. 3,

lines 7-21].

      -- restoring the execution state of the program using

      the retrieving information of the execution state of

      the program [col. 5, lines 55-54].

- executing special error (i.e., system failure, etc...)

handling instructions saved on a backup device [col. 3,

lines 1-6].


As per claim 89:

Perks further explicitly teaches:

- a computer readable medium having computer-executable

components comprising the system of claim 76 [col. 7,

line12 through col. 8, line 18].


This is clearly shown that Perks's teaching capabilities

are corresponding to Applicant's invention.


6.    Claims 54-55, 61-62, 71, 79, 82, 84 are rejected under 35

U.S.C. § 103(a) as being anticipated by Perks (U.S. Patent

5,924,102) in view of McGill, III et al. (US Patent 5,469,573

hereafter referred to as McGill).


As per claims 54-55 and 61:

    Perks explicitly teaches:

    - A method for backing up and restoring a computer system

    software stored persistently [abstract, col. 2, lines 1-7

    and 19-21], comprising:

    - storing select operating system [col. 3, lines 7-21;

    - rebooting the computer system [col. 5, lines 19-25].


    Perks does not disclose:

    - installing a device driver.

However, Perks discloses capability of:

- **configuration files, setup files, and others used for**

**recovery of a system failure, hard disk reformat, etc...**

**[col. 1, lines 51-57].**

- **a critical file on user's hard disk [col. 3, line 57].**


In addition, McGill substantial teaches the invention.
McGill teaches:

- A method for backing up and restoring a computer system

[abstract, fig. 2, col. 1, lines 1-6] comprising:

- writing device driver to a medium [col. 2, lines 43-47].


Therefore, it would have been obvious to a person having

ordinary skill in the art at the time of Applicant's invention

first, to realize the Perks's configuration files, setup files,

and others used for recovery of a system failure, hard disk

reformat, and a critical file on user's hard disk as being the

installing a device driver feature as claim by Applicant. This

is because all hardware or devices need to have a driver

associated with it in order for it to communicating with the

system manager and/or system operating system; second, one would

apply the writing device driver to a medium feature as taught by

McGill in conjunction with the information handling system as

disclosed by Perks in order to enhance the system recovery and

restoration process. One of ordinary skill in the art would have

been motivated to do so to provide the data computer system,

more specifically to a data backup, recovery, and restoration a

mechanism to enhance data storage response time, data rebuilt

process, data communication, and data consistency performance

throughput.

As per claim 62:

> Perks explicitly teaches:
>
> - A method for backing up and restoring a computer system
>
> software stored persistently [abstract, col. 2, lines 1-7
>
> and 19-21], comprising:
>
> - restoring the state of the hardware device [col. 1, lines
>
> 17-20 and col. 3, lines 46-64.]

> Perks does not disclose limitation of:
>
> - scanning for current hard disk information.

> However, Perks discloses capability of:
>
> - **configuration files, setup files, and others used for**
>
> **recovery of a system failure, hard disk reformat, etc...**
>
> **[col. 1, lines 51-57].**

- **marking critical within the handling system [col. 5, line 5-11].**

In addition, McGill substantial teaches the invention. McGill teaches:

- A method for backing up and restoring a computer system [abstract, fig. 2, col. 1, lines 1-6] comprising:

- initializing, formatting and partitioning hard disk device  [col. 2, 50-54 and col. 7, lines 13-23].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of Applicant's invention to apply the initializing, formatting and partitioning hard disk device (i.e., scanning for current hard disk information) feature as taught by McGill in conjunction with the information handling system as disclosed by Perks in order to performing the hard disk system recovery and restoration process. One of ordinary skill in the art would have been motivated to do so to provide the data computer system, more specifically to a data backup, recovery, and restoration with a mechanism to ensure the hard disk's memory capacity is error free for its operation process.

As per claim 71:

Perks explicitly teaches:

- A computer-readable medium having stored thereon a data

structure [abstract, col. 7, line12 through col. 8, line

18].

Perks does not disclose:

- hard disk comprises partition and volume information.

However, Perks discloses capability of:

- modifying, marking, and changing the critical files within

the computer handling system (i.e., components within the

computer system) [col. 5, lines 1-11].

In addition, McGill substantial teaches the invention.

McGill teaches:

- A method for backing up and restoring a computer system

[abstract, fig. 2, col. 1, lines 1-6] comprising:

- hard disk partition and volume [fig. 6A, col. 7, lines

15-22].

Therefore, it would have been obvious to a person having

ordinary skill in the art at the time of Applicant's invention

first, to realize the Perks's modifying, marking, and changing

the critical files within the computer handling system (i.e.,

components within the computer system as well s  configuration

files, setup files, and others used for recovery of a system

failure, hard disk reformat, and a critical file on user's hard

disk) as being the hard disk comprises partition and volume

information as claim by Applicant. This is because in order for

the system device, such as hard disk, to function properly and

efficiently, the computer hard disk must be able to partitioned

and segmented to accommodate information in volume. This is

further obvious because this portioning capability is

notoriously well known in the art of computer memory and hard

disk arena;

second, one would apply the hard disk partition and volume

feature as taught by McGill in conjunction with the information

handling system as disclosed by Perks in order to enhance the

system recovery and restoration process. One of ordinary skill

in the art would have been motivated to do so to provide the

data computer system, more specifically to a data backup,

recovery, and restoration a mechanism to enhance data storage

and data consistency performance throughput within the computer

hard disk device.


As per claims 79 and 84:

Perks explicitly teaches:

- A method for recovering from a failure of a computer

system [col. 1, lines 10-15 and lines 50-56, and col. 3,

lines 1-6].

Perks does not disclose:

- specifying special driver files to load upon restoration

and installing a device driver.

However, Perks discloses capability of:

- **configuration files, setup files, and others used for**

**recovery of a system failure, hard disk reformat, etc...**

**[col. 1, lines 51-57].**

- **a critical file on user's hard disk [col. 3, line 57].**

In addition, McGill substantial teaches the invention.

McGill teaches:

- A method for backing up and restoring a computer system

[abstract, fig. 2, col. 1, lines 1-6] comprising:

- writing device driver to a medium [col. 2, lines 43-47].

Therefore, it would have been obvious to a person having

ordinary skill in the art at the time of Applicant's invention

first, to realize the Perks's configuration files, setup files,

and others used for recovery of a system failure, hard disk

reformat, and a critical file on user's hard disk as being the

specifying special driver files to load upon restoration and

installing a device driver feature as claim by Applicant. This

is because all hardware or devices need to have a driver

associated with it in order for it to communicating with the

system manager and/or system operating system; second, one would

apply the writing device driver to a medium feature as taught by

McGill in conjunction with the information handling system as

disclosed by Perks in order to enhance the system recovery and

restoration process. One of ordinary skill in the art would have

been motivated to do so to provide the data computer system,

more specifically to a data backup, recovery, and restoration a

mechanism to enhance data storage response time, data rebuilt

process, data communication, and data consistency performance

throughput.


As per claim 82:

    Perks explicitly teaches:

    - A method for recovering from a failure of a computer

    system [col. 1, lines 10-15 and lines 50-56, and col. 3,

    lines 1-6].

Perks does not disclose limitation of:

- scanning a hard disk.


However, Perks discloses capability of:

- **configuration files, setup files, and others used for recovery of a system failure, hard disk reformat, etc...** [col. 1, lines 51-57].

- **marking critical within the handling system [col. 5, line 5-11].**

In addition, McGill substantial teaches the invention. McGill teaches:

- A method for backing up and restoring a computer system [abstract, fig. 2, col. 1, lines 1-6] comprising:

- initializing, formatting and partitioning hard disk device   [col. 2, 50-54 and col. 7, lines 13-23].


Therefore, it would have been obvious to a person having ordinary skill in the art at the time of Applicant's invention to apply the initializing, formatting and partitioning hard disk device (i.e., scanning for current hard disk information) feature as taught by McGill in conjunction with the information handling system as disclosed by Perks in order to performing the hard disk system recovery and restoration process. One of

ordinary skill in the art would have been motivated to do so to

provide the data computer system, more specifically to a data

backup, recovery, and restoration with a mechanism to ensure the

hard disk's memory capacity is error free for its operation

process.


7.    Applicant's arguments with respect to claims 49-89 have

been considered but are moot in view of the new ground(s) of

rejection.


8.    Applicant's amendment necessitated the new ground(s) of

rejection presented in this Office action.  Accordingly, **THIS

ACTION IS MADE FINAL**.  See MPEP § 706.07(a).  Applicant is

reminded of the extension of time policy as set forth in 37

CFR 1.136(a).

A shortened statutory period for reply to this final action

is set to expire THREE MONTHS from the mailing date of this

action.  In the event a first reply is filed within TWO MONTHS

of the mailing date of this final action and the advisory action

is not mailed until after the end of the THREE-MONTH shortened

statutory period, then the shortened statutory period will

expire on the date the advisory action is mailed, and any

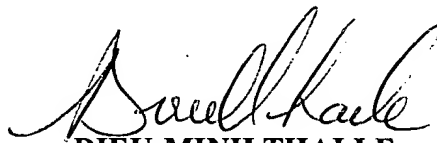extension fee pursuant to 37 CFR 1.136(a) will be calculated

from the mailing date of the advisory action.   In no event,

however, will the statutory period for reply expire later than

SIX MONTHS from the date of this final action.


9.    The prior art made of record and not relied upon is
considered pertinent to applicant's disclosure.


10.   Any inquiry concerning this communication or earlier
communications from the examiner should be directed to Dieu-Minh
Le whose telephone number is (703) 305-9408.   The examiner can
normally be reached on Monday-Thursday from 6:30 AM to 4:00 PM.
The examiner can also be reached on alternate Fridays.
      If attempts to reach the examiner by telephone are
unsuccessful, the examiner's supervisor, Robert Beausoliel, can
be reached on (703)305-9713.   The fax phone number for this
Group is (703) 872-93069.

      Any inquiry of a general nature or relating to the status
of this application should be directed to the Group receptionist
whose telephone number is (703) 305-3900.


**DIEU-MINH THAI LE**
**PRIMARY EXAMINER**
**ART UNIT 2114**


DML
3/18/04